
Option 51 upgrade to Option 61C

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Reference list

The following are the references in this section:

- *Software Conversion Procedures* (553-2001-320)
- *Power Engineering* (553-3001-152)
- *Product Compatibility* (553-3001-156)
- *System Installation Procedures* (553-3001-210)

- *Circuit Card: Installation and Testing* (553-3001-211)
- *X11 Administration* (553-3001-311)

CAUTION

Read through the entire procedure before you begin this upgrade.

Perform a thorough audit on the existing system to verify the suitability of the upgrade package and to resolve any existing operational problems, error messages, or other problems.

To upgrade an Option 51 to a Meridian 1 Option 61C, you must upgrade both the hardware and the software. Upgrading the hardware consists of the following:

- installing a Meridian 1 Option 61C next to the Option 51
- removing network equipment from the Option 51
- connecting the Option 51 to the Option 61C

Upgrading the software consists of one of the following:

- convert the customer database to X11 Release 25 on-site
- send the customer database disks to Nortel Networks for conversion
- reenter the customer database on the Option 61C after the upgrade is complete

Equipment required

Tables 57 and 58 list the minimum items required to upgrade an AC-powered or DC-powered system to an Option 61C. Some configurations may require items not included in the tables. All required items must be identified and on hand before you begin the upgrade. Whenever a new column is installed, you must also provide NT8D49AA Column Spacer Kits and P0699724 Modular Side Covers.

Letters at the end of the part number may represent the minimum vintage of the upgrade equipment. Only equipment of that vintage or later can be used. Refer to *Product Compatibility* (553-3001-156) for equipment compatibility information.

Network cables are required to connect the network cards in the new Core/Net module to the IPE Controller card in the IPE shelf of the Option 51. The number of cables required depends on the number of network cards installed. These are the cables:

- NT8D88 cables that connect network cards to the Core/Network module I/O panels
- NT8D98 cables that connect the I/O panels in the Core/Network module to the IPE module I/O panels
- NT8D92 cables that connect the peripheral controller to the IPE module I/O panels

An NT8D01 Controller card is provided to support the intelligent peripheral cards in the new IPE module. If analog peripheral cards are used in the IPE module, one NT8D21 Ringing Generator must be installed.

Upgrade preparation

Some preparation is required before the conversion of the Option 51 hardware and software begins. You must first do the following:

- Inventory all equipment required for the upgrade.
- Provide appropriate power and ground for the increased electrical load of the Option 61C.
- Install the Option 61C hardware.
- Back up the customer database to disk by doing a data dump.
- Convert the customer database to Release 25 compatibility.

Power and ground

Clean power and a good ground are prerequisites to any switch upgrade. Refer to *Power Engineering* (553-3001-152) to verify that sufficient power is available for the new equipment. Follow the procedures outlined in *System Installation Procedures* (553-3001-210) when installing new power equipment and to provide a good ground for the equipment.

Table 57
Hardware requirements for an AC-powered Option 61C (Part 1 of 2)

Qty	Part number	Description
1	NT1R91AA	Modem Kit
2	NT6D61AA	Input-Output Disk Unit with CDROM (IODU/C)
2	NT5D21AA	Core/Network module, AC
2	NT6D65AA	Core to Network Interface card (CNI)
2 2 2	NT9D19 or NT5D10 or NT5D03	Call Processor cards (CP) (see note 1)
1	NT7D00AA	Top Cap, AC
1	NT8D01BC	Controller-Four card
1	NT8D04BA	Superloop Network card
1	NT8D06AA	Peripheral Equipment Power Supply, AC
2	NT8D17FA	Conference/TDS card
1	NT8D22AC	System Monitor
1	NT8D27BB	Pedestal, AC
2	NT8D29AB	Common Equipment Power Supply, AC
1	NT8D37BA	Intelligent Peripheral Equipment module, AC (see note 2)
2	NT8D41AA	Dual-Port SDI Paddle Board
3	NT8D44AA	SDI Paddle Board to I/O Cable
1	NT8D46AG	System Monitor to SDI Paddle Board Cable (34 in.)
1	NT8D46BH	System Monitor to MDF Cable (32 ft.)

Table 57**Hardware requirements for an AC-powered Option 61C (Part 2 of 2)**

Qty	Part number	Description
1	NT8D52AB	Pedestal Blower Unit, AC
1	NT8D53BB	Power Distribution Unit, AC
1	NT8D75BD	Clock Controller to Clock Controller Cable
2	NT8D80AZ	CPU Interface Cable (5 ft.)
3	NT8D84AA	SDI Paddle Board to I/O Cable (18 in.)
1	NT8D91AE	Network to Controller Cable (8 ft.)
2	NT8D99AB	CPU to Network Cable (2 ft.)
2	NTND11BA	CP-to-CP Cable (6 ft.)
1	NTND13BC	IOP to IOP SCSI Cable (6 ft.)
6	NTND21AA	Module Side Cover (see note 3)
2	QPC43R	Peripheral Signaling card (PS)
1	QPC84S	Power Monitor
2	QPC441F	Three-Port Extender card (3PE)
2	QPC471H or	Clock Controller cards (see note 4)
2	QPC775	

Note 1: Two NT9D19 (68040), NT5D10 (68060) or two NT5D03 (68060E) CP cards are required.

Note 2: One NT8D21AA Ringing Generator, AC, must be added for each IPE module in which analog-type peripheral cards are to be used.

Note 3: Determine whether additional NTND21AA module side covers (to cover all exposed sides of modules) and NT8D49AA Column Spacer Kits (to connect modules side-to-side) are necessary, and order separately.

Note 4: If the Option 61C will have PRI or DTI cards installed, you must have two QPC471 Clock Controller cards (vintage H) or two QPC775 (vintage E) Clock Controller cards to perform this upgrade. Order separately, as required.

Table 58
Hardware requirements for a DC-powered Option 61C (Part 1 of 2)

Qty	Part number	Description
1	NT1R91AA	Modem Kit
2	NT6D61AA	Input-Output Disk Unit with CDROM (IODU/C)
2	NT5D21AA	Core/Network module, AC
1	NT6D40AB	Peripheral Equipment Power Supply, DC
1	NT6D41AB	Common Equipment Power Supply, DC
2	NT6D65AA	Core to Network Interface card (CNI)
2	NT9D19 or	Call Processor cards (CP) (see note 1)
2	NT5D10 or	
2	NT5D03	
1	NT7D00BA	Top Cap, AC
1	NT7D06AA	Filler Panel
1	NT7D09CA	Pedestal, DC
1	NT7D10CA	System Monitor Panel
1	NT7D67CB	Power Distribution Unit, DC
1	NT8D01BC	Controller-Four card
1	NT8D04BA	Superloop Network card
2	NT8D17FA	Conference/TDS card
1	NT8D22AC	System Monitor
1	NT8D37EC	Intelligent Peripheral Equipment module, AC (see note 2)
2	NT8D41AA	Dual-Port SDI Paddle Board
1	NT8D46AG	System Monitor to SDI Paddle Board Cable (34 in.)
1	NT8D46BH	System Monitor to MDF Cable (32 ft.)

Table 58
Hardware requirements for a DC-powered Option 61C (Part 2 of 2)

Qty	Part number	Description
1	NT8D52DD	Pedestal Blower Unit, DC
1	NT8D75BD	Clock Controller to Clock Controller Cable
2	NT8D80AZ	CPU Interface Cable (5 ft.)
3	NT8D84AA	SDI Paddle Board to I/O Cable (18 in.)
1	NT8D91AE	Network to Controller Cable (8 ft.)
2	NT8D99AB	CPU to Network Cable (2 ft.)
2	NTND11BA	CP-to-CP Cable (6 ft.)
1	NTND13BC	IOP to IOP SCSI Cable (6 ft.)
6	NTND21AA	Module Side Cover (see note 3)
2	QPC43R	Peripheral Signaling card (PS)
1	QPC84S	Power Monitor
2	QPC441F	Three-Port Extender card (3PE)
2	QPC471H or QPC775E	Clock Controller cards (see note 4)
Note 1: Two NT9D19 (68040), NT5D10 (68060) or two NT5D03 (68060E) CP cards are required. Note 2: One NT8D21AA Ringing Generator, AC, must be added for each IPE module in which analog-type peripheral cards are to be used. Note 3: Determine whether additional NTND21AA module side covers (to cover all exposed sides of modules) and NT8D49AA Column Spacer Kits (to connect modules side-to-side) are necessary, and order separately. Note 4: If the Option 61C will have PRI or DTI cards installed, you must have two QPC471 Clock Controller cards (vintage H) or two QPC775 (vintage E) Clock Controller cards to perform this upgrade. Order separately, as required.		

Installing Option 61C hardware

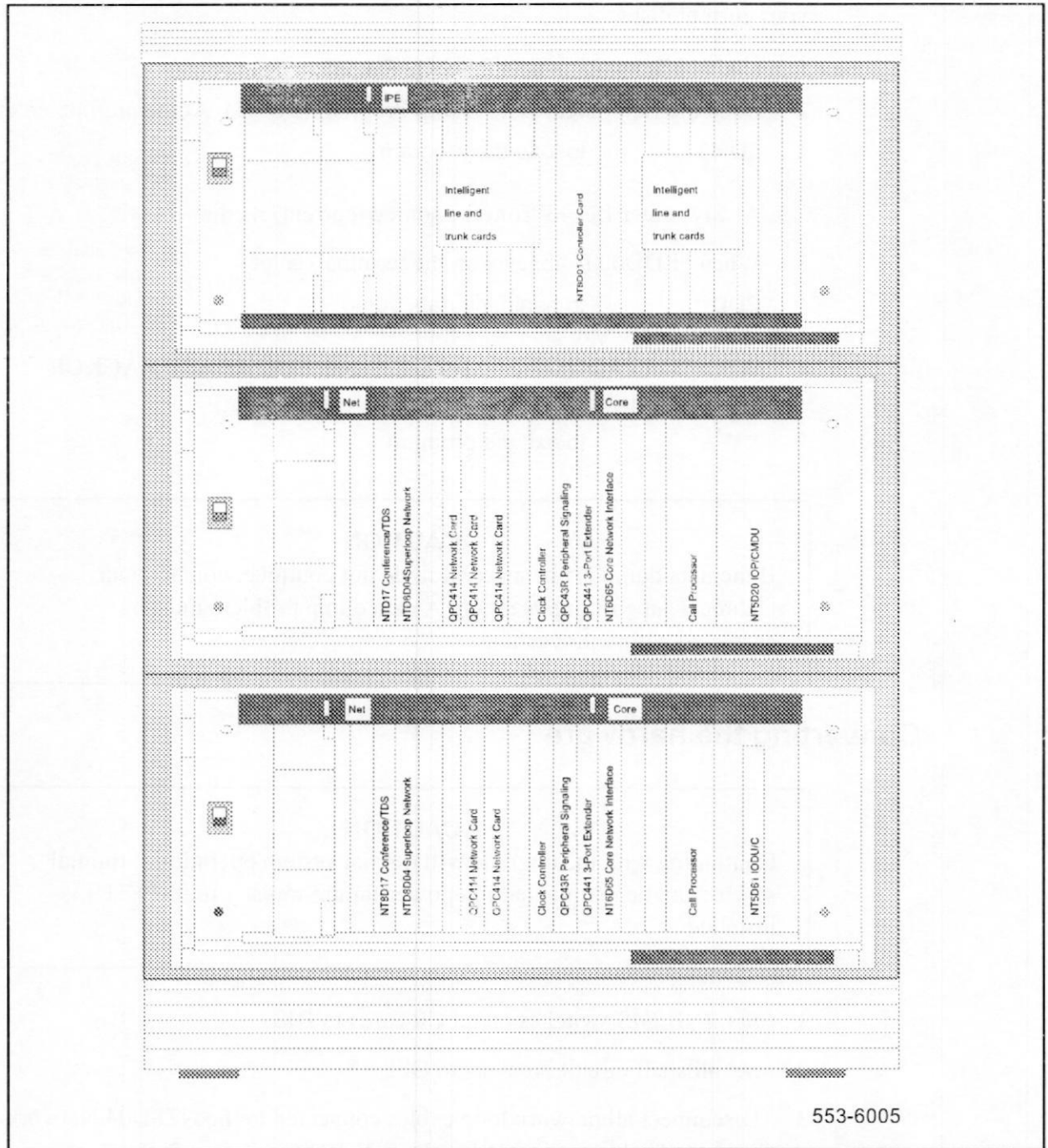
The Option 61C equipment is preconfigured at the factory according to your requirements. The equipment includes the pedestal, Core/Network modules, IPE module, cards, and top cap. Cards such as IODU/Cs and power supplies are shipped in separate packages to prevent damage to the cards.

Figure 68 shows the Option 61C common equipment and intelligent peripheral equipment modules and cards installed in their typical card slots.

To install the Option 61C at your site, first follow the procedures in *System Installation Procedures* (553-3001-210) and then continue with the procedures in this chapter.

Also install any external cables that can be installed at this time without interrupting service (see “Installing external cables” on page 415).

Figure 68
Meridian 1 Option 61C



Performing a data dump

Before converting your customer database, you must perform a data dump to your current disks.

- 1 On the Option 51, log into the system.
- 2 Load the Equipment Data Dump Program (LD 43). At the prompt, enter **LD 43** to load the program

Always enter LD 43 from the source (current) media.

- 3 When "EDD000" appears on the terminal, enter **EDD** to begin the data dump
- 4 When "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" appears on the terminal, enter ******** to exit the program

CAUTION

If the data dump is not successful, do not continue; contact your technical support organization. A data dump problem must be corrected before proceeding.

Converting the hardware

CAUTION

Continuing with the upgrade will disrupt system operation. Minimal service can be maintained if a power failure transfer unit (PFTU) is installed.

- 1 Set ENB/DIS switches on all CE cards to DIS.
- 2 Set all shelf circuit breakers to OFF.
- 3 Disconnect all network loop cables connected to the NT8D04 Network cards and cables connected to the SDI cards.

- 4 Disconnect and remove any remaining cables connected to cards in the CE shelf.
- 5 Remove remaining cards from the CE shelf and store them in a safe place.

Installing external cables

After the Option 61C columns are installed and the Option 51 column has been prepared, you must connect them with external cables.

Note: Installing external cables between the Option 51 and Option 61C columns is required only if the two columns are not positioned side-by-side. If these columns are adjacent to each other, you must install column spacer kits and route cables between the columns as outlined in *System Installation Procedures* (553-3001-210).

- 1 Install network cables between the Option 51 column and the Option 61C column. These cables connect network cards in the Core/Network module to the IPE Controller card in the IPE shelf of the Option 51.

Each network loop connection requires three cables:

- a Connect the NT8D88 cable from the faceplate connector of the network card to the I/O panel connector at the rear of the Core/Network module.
 - b Connect the NT8D98 cable (up to 16 feet in length) from the I/O panel connector on the Core/Network module to the I/O panel on the IPE module.
 - c Connect the NT8D92 cable from the faceplate connector of the peripheral controller to the I/O panel connector at the rear of the IPE module.
- 2 Install alarm cables as outlined in "System monitor upgrade installation" on page 805.
 - 3 Connect the external cable to the Core/Network module I/O panel connecting PRI/DTI to the network interface.
 - 4 Install one PRI/DTI card in this module to be the master card and install the rest of the PRI/DTI cards, as slaves, in the Option 51 CPU/Network shelf.

- 5 Install one PRI/DTI card in this module as the primary clock reference and install the rest of the PRI/DTI cards in the Option 51 CPU/Network shelf. For installation procedures, refer to *Circuit Card: Installation and Testing* (553-3001-211).
- 6 Verify that PRI/DTI cards in the Option 51 CPU/Network shelf are connected to the MDF or network interface.
- 7 Connect all external cables from the MDF to IPE shelf connectors in cabinet I/O panels and IPE module I/O panels. Refer to *System Installation Procedures* (553-3001-210) for IPE module I/O panel external cable installation procedures.

Note: Make sure a terminal is connected to J25 on the I/O panel in Core 1. If you are using only one terminal or a switch box for the CPSI ports, set the connection to Core/Net 1. Verify that the terminal is set for 9600 baud, 7 data bits, 1 stop bit, space parity, full duplex, XON protocol.

Transferring the database from 4.0 MB to IODU/C

In this procedure you will transfer the Option 51 4MB database to the IODUC. This is accomplished using the direct cabling method (described below).

Note: The database can also be transferred using the Database Transfer Utility (included in the Software Kit) which requires an interim IOP/CMDU card to be used during the database transfer procedure (refer to the "Database Transfer" section in this book for instructions).

CAUTION

Ensure that Core/Net 1 is powered down when installing the IODU/C and MDU/SMDU into the Core/Net backplane. Failure to power down the module may cause damage to the MDU or SMDU cards.

- 1 **Verify that Core/Net 1 is powered down.**
- 2 Remove the IODU/C card from Core/Net 1.
- 3 Locate the IODU/C card and round 1/2" diameter IODU/C security device.

- 4 With the Nortel side facing upward, slide the security device between the black round security device holder on the top right corner of the IODU/C card and the holder clip. Ensure that the security device is securely in place.

IODU/C cabling

- 1 Disconnect the NT5D54AA ribbon cable from the CD-ROM drive SCSI connector. **Do not** disconnect the cable from the IODU/C circuit board.
- 2 Plug the male connector of the NT5D50AA ribbon cable into the NT5D54AA SCSI ribbon cable that was just disconnected. Make sure that the colored edges of both ribbon cables are lined up when connecting the cables (P1 to P1).
- 3 Route the other end of the NT5D50AA ribbon cable over the CD-ROM drive, past the IODU/C faceplate, to the empty network card slots where the MDU will be temporarily installed.
- 4 Install the IODU/C card into slot 17 of Core/Net 1.

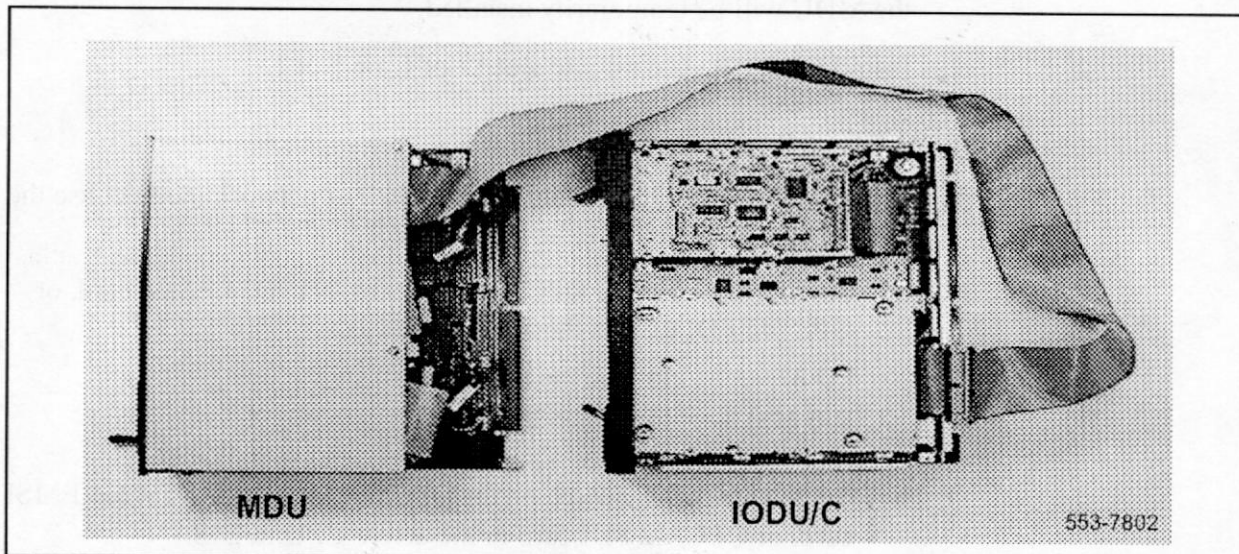
MDU cabling

- 1 If the MDU or SMDU was stored in CPU 0 or network module, use the following steps to remove the MDU/SMDU:
 - a Software disable the QPC584 MSI card, NT9D34 EMSI card, or QPC742 FDI card in the active CPU:
LD 37 to load the program
DIS MSI 0 to disable the card
 - b Set the ENB/DIS switch on the QPC584 MSI card, NT9D34 EMSI card, or QPC742 FDI card in the active CPU to DIS.
 - c Remove the floppy diskettes from the disk drives.
 - d Label and disconnect cables from the faceplate of the MDU or SMDU.
 - e Unhook the lock latches on the MDU/SMDU and gently pull the unit forward two or three inches.

Note: When removing an MDU, wait at least 30 seconds after unplugging the unit from the card slot before you remove it from the card cage. This allows the hard disk drive to stop spinning, and reduces the risk of damage to the drive.

- 2 Unplug the NTND1602 SCSI ribbon connector from the MDU/SMDU floppy drive A. Floppy drive A is at the top of the MDU/SMDU card.
- 3 Plug the NT5D50AA ribbon cable P2 female connector into the floppy drive A connector on the MDU/SMDU (see Figure 69, on page 418). Make sure that the colored edge of the ribbon cable is towards the floppy drive power connector. This connects the IODU/C to the MDU/SMDU floppy drive A.

Figure 69
Cabling the MDU to the IODU/C card



- 4 Install the MDU/SMDU into an empty network card slot in the Core/Net 1 module. If the SMDU is used, you must also install the NT9D34 EMSI card next to the SMDU in a network slot of Core/Net 1. Connect the NT9D66 faceplate cable (J1) between the SMDU and EMSI cards.
- 5 Connect a terminal to the J25 port on the I/O panel in Core/Net 1. Use the following settings on the terminal: 9600 baud, 7 data bits, space parity, full duplex, 1 stop bit, XON protocol.

- 6 Insert the B1 (4MB) customer database diskette previously archived, into the floppy drive A (top drive) of the MDU/SMDU.
- 7 Verify that the CP card is set to MAINT and seat the card.
- 8 Set the ENB/DIS switch on the IODU/C card to ENB (and EMSI if installed).
- 9 Insert the CP Install Program diskette that corresponds with the installed CP card into IODU/C floppy drive.
- 10 Apply power to the module.

The system is now loading software from the floppy diskette and the terminal will display SYSLOAD messages during file loading. Wait for the NT logo to appear after SYSLOAD has been completed.

- 11 When the NT logo appears, press <CR> to continue.
- 12 Log into the system and enter the time and date, when prompted.
- 13 Initiate the database installation by selecting the following command from the menu:
 - <u> to Install menu
- 14 Remove the CP Install Program diskette and insert the Keycode diskette, when prompted.
 - <a> to continue with keycode validation
 - <y> to confirm that the keycode matches the CD-ROM release
- 15 When the Install Menu appears, select the following options in sequence:
 - <d> to install customer database only
 - <f> to transfer the customer database from the MDU
 - <a> to continue the database transfer
 - <a> to transfer the database from the floppy to the hard disk (make sure customer database B1 diskette is installed in the floppy drive A on the MDU)
 - <cr> to continue
the Installation Status Summary menu appears to confirm database transfer
 - <y> to start installation

<a> yes, transfer the database

Database transfer begins. After the customer database is successfully transferred, the system displays "Success! Database Transferring complete".

<CR> Press Return to display the Installation Status Summary, which shows that the database was successfully transferred.

<CR> Press return to return to the Install Menu.

Remove any diskettes from the floppy drive.

<q> When the Install Menu appears, select <q> to quit.

<y> to confirm quit

<a> to reboot the system

The system will automatically perform a sysload during which several messages will appear on the system terminal. Wait until the system initializes before continuing.

16 Shut down power to Core/Net 1 module.

Note: When removing the IODU/C card, wait at least 30 seconds before you remove it from the card cage. This allows the hard disk drive to stop spinning, and reduces the risk of damage to the drive.

- 17 Remove the IODU/C card and disconnect the ribbon cable NT5D50AA from the CD-ROM drive connector. Reinstall the NT5D54AA SCSI ribbon cable between the CD-ROM drive and the J9 motherboard connectors.
- 18 Reinstall the IODU/C into the card slot 17 and ensure that the ENB/DIS switch is set to ENB.
- 19 Insert the CP Install Program diskette that corresponds with the installed CP card into the IODU/C floppy drive.
- 20 Unplug and remove the MDU/SMDU from the network card slot of Core/Net and disconnect the NT5D50AA ribbon cable from the floppy disk drive A and reconnect the NTND1602 SCSI ribbon cable to the disk drive A. Unplug and remove the EMSI card from Core/Net module, if equipped.
- 21 Reinstall the MDU/SMDU into CPU 0:
 - a Connect the cable(s) to the faceplate of the MDU.
 - b Install the floppy diskette in the MDU

c Set the ENB/DIS switch to ENB on both MSI or EMSI cards.

d Software enable the MSI, EMSI, or FDI card:

LD 37 to load the program

ENB MSI 0 to enable the card

22 Install the remaining Core/Net circuit cards and faceplate enable them. **Leave the CNI cards disabled** to ensure call processing is not disrupted on the active CPU.

23 Verify that the 3PE to 3PE cabling in the Core/Net 0 and Core/Net 1 modules are cabled (J3 to J3 and J4 to J4).

24 Verify that the CP card faceplate switch is set to MAINT.

25 Apply power to the module.

The database transfer procedure is complete and you are ready to install Release 25 software in Core/Net 1.

Installing Release 25 software in Core/Net 1

Before you begin:

- all cards must be installed in Core/Net 1
- the CP Install Program diskette must be in the IODU/C floppy drive
- the module must be powered on
- a terminal must be connected to the J25 CPSI port on Core/Net 1

1 Install the CD-ROM into the CD drive:

- a press the button on the CD-ROM drive to open the CD-ROM disk holder
- b place the CD-ROM disk into the holder with the disk label showing
- c use the four tabs to secure the CD-ROM in the disk holder
- d press the button again to close the CD-ROM disk holder (don't push the holder in by hand)

2 Enter the date and time when prompted.

- 3 When the Main Menu appears, select the following options in sequence:

 <u> to Install menu

- 4 Remove the CP Install Program diskette and insert the Keycode diskette.
 Select the following when prompted:

 <a> to continue with keycode validation

 <y> to confirm that the keycode matches the CD-ROM
 release

- 5 When the Install Menu appears, select the following options in sequence:

 <a> to install software, CP-BOOTROM, and IOP-ROM

 <a> to verify that the CD-ROM is now in drive

 The Installation Status Summary screen appears to confirm that
 you are installing CD to disk, disk to ROM, CP-BOOTROM, and
 IOP-ROM. Select the following to continue:

 <y> to start installation

 <a> to continue with upgrade

 The software installation begins. The CD-ROM files are copied to
 the system hard disk. When you are prompted to replace the
 previous CP-software with ROM image files, select:

 <a> to continue with ROM upgrade

 When all files were copied from the CD-ROM to the hard disk,
 press:

 <CR> to continue

 You are prompted to replace old CP-BOOTROM with the ROM
 image files. Select:

 <a> to continue with ROM upgrade (this installs CP flash
 ROM on the Call Processor card)

 The system confirms that the release and issue of IOP-ROM is the
 same release and issue of the ROM image file. Select the following
 options in sequence:

 <y> to start installation

 <a> to continue with ROM upgrade (IOP-ROM is installed)

 The Installation Status Summary screen appears to confirm that CD
 to disk, disk to CD, CP-BOOTROM and IOP-ROM were installed
 successfully. Press:

 <CR> to continue

When the Install Menu appears, select the following options in sequence to quit and reboot the system:

<q> to quit

<y> to confirm quit

Remove the diskette from the floppy drive.

<a> to reboot the system

The system will automatically perform a sysload during which several messages will appear on the system terminal. Wait for the "DONE" and then "INI" messages to be displayed before continuing.

- 6 When the sysload is complete, log into the system.
- 7 Confirm that the X11 Release 25 software is installed and is functional on Core/Net 1:

LD 135 to load the program

STAT CPU to display the CPU status

Note: This concludes the X11 Release 25 software installation into the IODU/C in Core/Net 1.

- 8 Verify that the CD-ROM disk is removed from the IODU/C. Make sure that the 2MB diskettes are installed in the IODU/C floppy drive to data dump the customer database:

LD 43 to load the program

- 9 When "EDD000" appears on the terminal, enter:

EDD to begin the data dump

- 10 When "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" appears on the terminal, enter:

******** to exit the program

CAUTION

If the data dump is not successful, do not continue; contact your technical support organization. A data dump problem must be corrected before proceeding.

11 Set date and time:

LD 2	to load the overlay
STAD	DD MM YY HR MN SC

Copying the software and database to Core/Net 0

- 1 Connect a terminal to the CPSI port in Core/Net 0 to J25 of the I/O panel at the back of the core. Be sure it is configured as follows. The recommended baud rate is 9600, to be the same as the CPSI port.

- 7 data bits
- 1 stop bit
- Space parity
- Full duplex
- XON protocol

This procedure copies the customer database from IODU/C in Core/Net 1 to the IODU/C in Core/Net 0, synchronizes the CPUs, and tests all the elements of each Core.

- 1 Set the MAINT/NNORM switch on the CP card in Core 0 to MAINT.
- 2 Insert the CP Install Program diskette into the IODU/C floppy drive in Core/Net 0. Make sure that the CP Install Program corresponds to the CP card type installed in the system.
- 3 Press the MAN RST button on the CP card in Core/Net 0 to reboot the system and start the Software Installation Tool. (The terminal displays SYSLOAD messages during file loading. When SYSLOAD is completed, the NT logo appears.)

- 4 Initiate the installation by selecting the following prompt from the menu:

<cr> <u> to Install menu

- 5 Remove the CP Install Program diskette and insert the Keycode diskette, when prompted.

<a> continue with keycode validation

<y> to confirm that keycode matches CD-ROM release

- 6 Remove the Keycode diskette and re-insert the CP Install Program diskette into the IODU/C floppy drive in Core/Net 0.
- 7 When the Install Menu appears, select the following options in sequence to copy the software from Core/Net 1 to Core/Net 0, install CP-software, ROMs, and transfer the database to the redundant disk:

<o> to copy system software from the other Core
<a> to continue
<a> to continue

When the software has copied successfully, you must install CP-software from the hard disk to Flash EEPROM, and install CP-BOOT ROM.

<CR> press <CR> when you are ready to continue
<y> to start installation
<a> to continue with ROM upgrade
<y> to start installing CP-BOOT ROM
<a> to continue with ROM upgrade.

When the installation is complete, the Installation Status Summary screen appears.

<CR> to return to the Install Menu
When the Install Menu appears, install IOP-ROM:

<f> to install IOP-ROM only

When the Installation Status Summary screen appears:

<y> to start installation
<y> to continue installing IOP-ROM
<a> to continue with ROM upgrade

When the installation is complete, the Installation Status Summary screen appears.

<CR> to return to the Install Menu
When the Install Menu appears, install the database:

<d> to install database only

When the Installation Status Summary screen appears:

<y> to start installation
<a> to continue transferring the database from the redundant disk

When the Installation Status Summary screen appears:

<CR> to return to the Install Menu

When the Install Menu appears, remove any diskettes in the floppy before rebooting the system:

- <q> to quit
- <y> to confirm quit
- <a> to reboot the system

Wait for "DONE" and then "INI" messages to be displayed before continuing.

Returning the system to redundant mode

- 1 In Core/Net 0, enable the NT6D65 CNI cards by setting the ENB/DIS switch to ENB.
- 2 In Core/Net 0, press and release the MAN RST button.
- 3 When SYS700 messages appear on the CP 0 LCD, **set the MAINT/NORM switch to NORM.**
- 4 In 60 seconds, the LCD will display and confirm the process:

RUNNING ROM OS ENTERING CP VOTE

An "HW5134" message from the CPSI port (Core/Net 1) or SDI port indicates the start of memory synchronization. Within 10 minutes, an HW1533 message from the Core/Net 1 CPSI port indicates that Core/Net 1 memory and Core/Net 0 memory are synchronized. Wait until the memory synchronization is complete before continuing.

- 5 In Core/Net 1, **set the NORM/MAINT switch to NORM** on the CP card.
- 6 Perform a redundancy sanity test:
 - LD 135** to load the program
 - STAT CNI** to get the statu of the CNI card
 - STAT CPU** to get the status of both Cores
 - TEST CPU** to test the inactive CP card and CP-to-CP cable
 - TEST CNI c s** to test each configured CNI on the inactive side

Note: Testing the CNI cards can take up to 90 seconds each. Testing the CP card can take up to 20 minutes.

- 7 Switch Cores and test the other CPU:

SCPU to switch to Core 0
TEST CPU to test the inactive CP card and CP-to-CP cable

- 8 Get the status of the CP cards and memories and of the CNIs:

STAT CPU to get the status of both Cores
STAT CNI to get the status of all configured CNIs
SCPU to swap to Core/Net 1 active
******** to exit LD 135

- 9 Synchronize the hard disk drives. To be sure the content of IODU/C 1 is copied to IODU/C 0, verify that IODU/C 0 is disabled:

LD 137 to load the program
STAT to get the status of IODU/Cs, and redundancy
SYNC synchronize the hard disk drives
TEST CMDU Performs hard and floppy disk test.

Note: Synchronization may take up to 50 minutes.

- 10 Get the status of the IODU/Cs and be sure IODU/C is active. Switch IODU/Cs if necessary:

STAT to get the status of IODU/Cs and redundancy
SWAP to switch IODU/Cs (if necessary)
******** to exit the program

- 11 In the Configuration Record (LD 17), add LD 135 and LD 137 to the midnight routines. Remove LD 35, but leave LD 37 selected.
- 12 Insert a B1 database disk into IODU/C 0. Load overlay 43 and perform a data dump.

Load the Equipment Data Dump Program (LD 43). At the prompt, enter

LD 43 to load the program

- 13 When “EDD000” appears on the terminal, enter
EDD to begin the data dump
- 14 When “DATADUMP COMPLETE” and “DATABASE BACKUP COMPLETE” appears on the terminal, enter
******** to exit the program

CAUTION

If the data dump is not successful, do not continue; contact your technical support organization. A data dump problem must be corrected before proceeding.

Moving the network cards

- 1 Perform the appropriate step to turn off power in each Core/Network module:
 - a For AC-powered systems, set the circuit breaker on the MPDU in the module to OFF (down position).
 - b For DC-powered systems, set the switch on the circuit breaker (located at the rear of the pedestal) to OFF (down position).
- 2 Label each card that is being transferred to a Core/Network module with the shelf (0 or 1) and loop (0–31) for the card.
- 3 On all cards that are being transferred to Core/Network modules, disable the faceplate switches, disconnect all cables, and remove the cards.
- 4 Connect all cables to the cards (including the NT8D88 cables from the I/O panels to the NT8D04 Superloop cards). Enable the faceplate switches.
- 5 Switch the cables at the PE end:
 - a If NT8D92 cables inside the IPE modules are not connected, connect them to the faceplates of the appropriate NT8D01 Controller cards.

- 6 Turn on power to the cabinet:
 - a Set the AC input circuit breaker on the -48V rectifier in the cabinet to ON.
 - b Set the CAB INP circuit breaker on the power control shelf in the cabinet and all other shelf circuit breakers to ON.
- 7 In the Option 61C, verify that all cards are enabled (all ENB/DIS switches are set to ENB).
- 8 Follow the appropriate step below to restore power in each Core/Network module.

Note: If power to both Core/Network modules is restored simultaneously, the CMDUs should still be synchronized.

- a For AC-powered systems, simultaneously set the MPDU in both Core/Network modules to ON (up position).
- b For DC-powered systems, simultaneously set the switch on the circuit breaker (located at the rear of the pedestal) in both Core/Network modules to ON (up position).

Completing the upgrade

- 1 Reenter system configuration data into the customer database, if required, in the following sequence:
 - a To improve system performance, balance the network loops between both Core/Network shelves. To do this, do the following:
 - Define the target loop using the Configuration Program (LD 17).
 - Move the loops using the Move Data Blocks Program (LD 25).

Refer to *X11 Administration* (553-3001-311) for instructions on using LD 17 and LD 25.

Note: You may have to add one or more network loops in the database for network shelf i (loops 16 through 31) to make the network shelf operational.

- b Move the network cards from the Option 51 to the network card slots previously defined.

- c Configure I/O devices to reflect the current configuration.
 - d Reenter customer data blocks. System options and features must reflect the current configuration.
 - e Configure station data blocks.
 - f Configure route data blocks.
 - g Configure trunk data blocks.
 - h Configure remaining system configuration records.
 - i Verify system operation before adding new equipment.
 - j Configure new equipment and functions, if any.
- 2 Verify the system by using test procedures described in *System Installation Procedures* (553-3001-210) and *X11 Administration* (553-3001-311). Clear any faults discovered during testing.
 - 3 Perform the postconversion procedure as outlined in *Software Conversion Procedures* (553-2001-320).

The Option 61C X11 Release 25 system is now operational.